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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,720	10/03/2003	Robert C. Lam	01168/DKT00076	6119
43215	7590	08/25/2005	EXAMINER	
BORGWARNER INC. PATENT DEPARTMENT 3850 HAMLIN ROAD AUBURN HILLS, MI 48326-2872			SPERTY, ARDEN B	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/678,720

Applicant(s)

LAM, ROBERT C.

Examiner

Arden B. Sperty

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Application filed 10/03/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 23-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/17/04</u> . | 6) <input type="checkbox"/> Other: _____ |

NON-FINAL OFFICE ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-22, drawn to a friction material, classified in class 442, subclass 59.
 - II. Claims 23-28, drawn to a process of making a friction material, classified in class 427, subclass 430.1.
2. The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by a materially different method such as by mixing the aramid and carbon fibers before forming and impregnating the material.
3. Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group I, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Chuck Schaub on August 4, 2005, a provisional election was made with traverse to prosecute the invention of Group I, claims 1-22. Affirmation of this election must be made by applicant in replying to this

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Office action. Claims 23-28 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 4 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It is not clear how to make a fiber having a diameter of 1 to 15 meters.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 4 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. The measurement units of claim 4 are inconsistent and incongruent.

10. Claim 12 is unclear because it is not clear whether "carbon fibers" (see the last two lines of the claim) refers to the partially carbonized carbon fibers of claim 6 or to a separate carbon fiber constituent, as in the optional elements of claim 6. It is presumed

that the carbon fibers of claim 12 are the optional carbon fibers of claim 6. It is also interpreted that the composition of claim 12 refers to the product as a whole, not just to the primary layer.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-22 are rejected under 35 U.S.C. 102(b) as anticipated by US Patent 5998307 to Lam et al., supported by M. Joseph in Introductory Textile Science: Fifth Edition.

13. The Lam ('307) reference teaches a fibrous base material comprising a primary layer of less fibrillated aramid fibers, and a secondary layer of carbon particles on at least one surface of the fibrous base material. The fibrous material is impregnated with a resin (see Abstract). The fibrous material further comprises synthetic graphite in varying amounts (col. 9, line 18- col. 10, line 44). Synthetic graphite is partially carbonized, as evidenced by M. Joseph in Introductory Textile Science, page 164. Graphite is 99%, thus not completely, i.e. partially, carbonized. The particles are included in amounts anticipating the claimed range (col. 9, line 60- col. 10, line 44). Size of the graphite is in the size range of about 20 to about 50 microns (col. 9, lines 39-43).

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14. Many materials are disclosed for use in the base material, including aramid fibers, graphite, filler, and cotton (col. 9, line 13 – col 10, line 44; col. 29, lines 61-64). The less fibrillated aramid fibers are described at column 8, lines 40-57. Resin is impregnated in an amount of about 45 to about 65% by weight (col. 8, lines 16-19). Resin compositions are described at column 6, lines 38+ and throughout the reference. Once impregnated, the pore size and available air voids are within the claimed ranges (col. 11, lines 4-9). Specific compositions anticipating claims 12 and 13 are disclosed at column 9 line 60 to column 10, line 44. Compositional modifications would be obvious to one of ordinary skill in the art.

Double Patenting

15. Claims 1-22 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9 of copending Application No. 10/678725. Although the conflicting claims are not identical, they are not patentably distinct from each other because the conflicting claims suggest the limitations of the present claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

16. Claims 1-22 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 and 6-17 of copending Application No. 10/666090. Although the conflicting claims are not identical,

they are not patentably distinct from each other because the conflicting claims suggest the limitations of the present claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

17. Claims 1-22 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of copending Application No. 10/678599. Although the conflicting claims are not identical, they are not patentably distinct from each other because the conflicting claims suggest the limitations of the present claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

18. Claims 1-22 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-26 of U.S. Patent No. 5998307. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims overlap and ultimately claim the same product.

19. Claims 1-22 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-33 of U.S. Patent No. 6182804. Although the conflicting claims are not identical, they are not patentably

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distinct from each other because the patented claims suggest the broader pending claims.

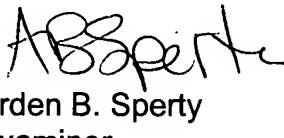
20. Claims 1-22 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-23 of U.S. Patent No. 6001750. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patented claims suggest the broader pending claims.

Conclusion

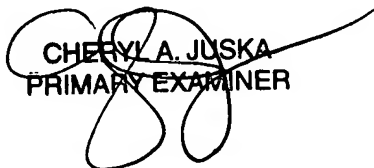
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arden B. Sperty whose telephone number is (571)272-1543. The examiner can normally be reached on M-Th, 08:00-16:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571)272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Arden B. Sperty
Examiner
Art Unit 1771

Aug 19, 2005


CHERYL A. JUSKA
PRIMARY EXAMINER